

PLANS AND/OR CRITERIA PURSUANT TO KT-FT.1.0.1# - TEMPORARY ROAD AND LANDING
CONSTRUCTION (OPTION 1) (6/08)

LANDINGS

Landings will not be constructed in Riparian Reserves unless other practicable locations outside the Riparian Reserve are not available. If landings are constructed in Riparian Reserves, suitable erosion control measures such as silt fences or other soil retention methods will be installed prior to landing construction and shall remain in place during the harvest operations.

TEMPORARY ROADS

In addition to the erosion control and stabilization requirements of GT.6.3, all Temporary Roads constructed pursuant to FT.1 shall be effectively closed after Contractor's use to preclude further vehicular use along the entire length of road. The Contractor shall, unless otherwise agreed, close Temporary Roads pursuant to Road Maintenance Specification T-835 and Special Project Specification T-835-01F.

TABLE PURSUANT TO KT-FT.1.2# - USE OF ROADS BY CONTRACTOR (9/04)

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
5130000 	Eight Mile	Jct.5100	Jct. 5130100	R	Closed to motorized, wheeled vehicles from December 1 to April 1. Snowplowed by permit only.
5220000	Ortell Creek		Jct.5130	R	Closed to motorized wheeled vehicles from December 1 to April 1.
5220200	Ortell Loup	Jct.52000	End	R	Closed to motorized wheeled vehicles from June 1 to June 30.
ALL		0.00	End		All gates will remain closed if cattle are authorized in project area.
All		0.00	end	R	Log haul prohibited on weekends from Friday 6 p.m. till Monday 2 a.m., and Federal Holidays.

Title and Date of Governing Road Rules Document:

Okanogan-Wenatchee National Forest Road
Use Rules

Commercial Road Rules

July 1,2010

Effective Date

TABLE PURSUANT TO KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications										
	From	To		T-803	T-812	T-831	T-834	T-835	T-836	T-839	T-841	T-842	T-851	T-891
5100000	End of County Road	Jct. w/5130000	2.10			P	P							
5130000	Jct. w/5100000	Jct. w/5220000	5.20			P	P							
5130100	Jct. w/5130000	Jct. w/5130160	4.82			P	P		P					
5130100	E tip of Unit 26A	Jct. w/5220000	3.09			P	P		P					
5130105	Jct. w/5130100	N tip of Unit 81	0.25							P				
5130105	SE tip of Unit 51	Jct w/5130100	1.77							P				
5130120	Jct w/5130105	End of road	0.50							P				
5130125	Jct. w/5130105	NE edge of Unit 40A	0.54						P					
5130140	Jct. w/5130100	End of road	2.10						P					
5130141	Jct. w/5130140	SE edge of Unit 74	0.31							P				
5130142	Jct. w/5130140	SE edge of Unit 82	1.54							P				
5130143	Jct. w/5130142	SE edge of Unit 489	0.66							P				
5130144	Jct. w/5130140	E edge of Unit 489	0.76							P				
5130155	Jct. w/5130100	S edge of Unit 61A	1.52						P					
5130157	Jct. w/5130155	S edge of Unit 61A	0.12						P					
5130160	Jct. w/5130155	N edge of Unit 191	0.37						P					
5130165	Jct. w/5130155	SW corner of Unit 61A	0.62						P					
5130175	Jct. w/5130100	Jct. w/5130176	0.10						P					

P = Contractor Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Contract Road Maintenance Requirements Summary (continued)

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications										
	From	To		T-803	T-812	T-831	T-834	T-835	T-836	T-839	T-841	T-842	T-851	T-891
5130176	Jct. w/5130175	N end of Unit 26	0.49							P				
5130177	Jct. w/5130176	End of road	0.20							P				
5130178	Jct. w/5130176	NW corner of Unit 26A	0.53							P				
5130180	Jct. w/5130100	S edge of Unit 143	0.18							P				
5200025	Jct. w/County Rd. (Cub Cr.)	Jct. w/5200035&040	1.28						P			P		
5200030	Jct. w/5200025	Jct. 5200030-1.26L-1	1.70						P			P		
5200040	End of 5200025	End of road	1.10							P		P	P	
5200045	Jct. w/5200040	End of road	0.20							P		P		
5220000	Jct. w/5130000	Jct. w/5220120	6.67			P	P		P					
5220120	Jct. w/5220000	End of road	0.40							P				
5220150	Jct. w/5220000	Jct. w/5220155	0.08							P				
5220162	Jct. w/5220000	W edge of Unit 19	0.22							P				
5220170	Jct. w/5220000	NW corner of Unit 20	0.27						P					
5220171	Jct. w/5220170	Jct. w/5220400	0.49							P				
5220200	SW corner of Unit 4	Jct. w/5220000	1.05			P	P		P					
5220250	Jct. w/5220200	E corner of Unit 4	0.29						P					
5220305	Jct. w/5220000	End of road	1.80			P	P		P					

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TABLE PURSUANT TO KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)
Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications										
	From	To		T-803	T-812	T-831	T-834	T-835	T-836	T-839	T-841	T-842	T-851	T-891
5100000	End of County Road	Jct. w/5130000	2.10	P		P	P							
5130000	Jct. w/5100000	Jct. w/5220000	5.20	P		P	P							
5130100	Jct. w/5130000	Jct. w/5130160	4.82	P	P	P	P		P					P
5130100	E tip of Unit 26A	Jct. w/5220000	3.09			P	P		P					
5130105	Jct. w/5130100	N tip of Unit 81	0.25	P						P				
5130105	SE tip of Unit 51	Jct w/5130100	1.77	P						P				
5130120	Jct w/5130105	End of road	0.50	P						P				
5130125	Jct. w/5130105	NE edge of Unit 40A	0.54	P					P					
5130140	Jct. w/5130100	End of road	2.10	P	P				P					P
5130141	Jct. w/5130140	SE edge of Unit 74	0.31	P						P				
5130142	Jct. w/5130140	SE edge of Unit 82	1.54	P						P				
5130143	Jct. w/5130142	SE edge of Unit 489	0.66	P						P				
5130144	Jct. w/5130140	E edge of Unit 489	0.76	P						P				
5130155	Jct. w/5130100	S edge of Unit 61A	1.52	P					P					
5130157	Jct. w/5130155	S edge of Unit 61A	0.12	P					P					
5130160	Jct. w/5130155	N edge of Unit 191	0.37	P					P					
5130165	Jct. w/5130155	SW corner of Unit 61A	0.62	P					P					
5130175	Jct. w/5130100	Jct. w/5130176	0.10						P					

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Contract Road Maintenance Requirements Summary (continued)

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications										
	From	To		T-803	T-812	T-831	T-834	T-835	T-836	T-839	T-841	T-842	T-851	T-891
5130176	Jct. w/5130175	N end of Unit 26	0.49							P				
5130177	Jct. w/5130176	End of road	0.20							P				
5130178	Jct. w/5130176	NW corner of Unit 26A	0.53							P				
5130180	Jct. w/5130100	S edge of Unit 143	0.18							P				
5200025	Jct. w/County Rd. (Cub Cr.)	Jct. w/5200035&040	1.28	P					P					
5200030	Jct. w/5200025	Jct. 5200030-1.26L-1	1.70	P					P					
5200040	End of 5200025	End of road	1.10	P						P				
5200045	Jct. w/5200040	End of road	0.20	P						P				
5220000	Jct. w/5130000	Jct. w/5220120	6.67		P				P					P
5220120	Jct. w/5220000	End of road	0.40							P				
5220150	Jct. w/5220000	Jct. w/5220155	0.08							P				
5220162	Jct. w/5220000	W edge of Unit 19	0.22							P				
5220170	Jct. w/5220000	NW corner of Unit 20	0.27						P					
5220171	Jct. w/5220170	Jct. w/5220400	0.49							P				
5220200	SW corner of Unit 4	Jct. w/5220000	1.05						P					
5220250	Jct. w/5220200	E corner of Unit 4	0.29						P					
5220305	Jct. w/5220000	End of road	1.80						P					

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TABLE PURSUANT TO KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications										
	From	To		T-803	T-812	T-831	T-834	T-835	T-836	T-839	T-841	T-842	T-851	T-891
5100000	End of County Road	Jct. w/5130000	2.10			P	P							
5130000	Jct. w/5100000	Jct. w/5220000	5.20			P	P							
5130100	Jct. w/5130000	Jct. w/5130160	4.82			P	P		P					
5130100	E tip of Unit 26A	Jct. w/5220000	3.09			P	P		P					
5130105	Jct. w/5130100	N tip of Unit 81	0.25					P		P	P			
5130105	SE tip of Unit 51	Jct w/5130100	1.77					P		P	P			
5130120	Jct w/5130105	End of road	0.50					P		P	P			
5130125	Jct. w/5130105	NE edge of Unit 40A	0.54						P					
5130140	Jct. w/5130100	End of road	2.10						P					
5130141	Jct. w/5130140	SE edge of Unit 74	0.31					P		P	P			
5130142	Jct. w/5130140	SE edge of Unit 82	1.54					P		P	P			
5130143	Jct. w/5130142	SE edge of Unit 489	0.66					P		P	P			
5130144	Jct. w/5130140	E edge of Unit 489	0.76					P		P	P			
5130155	Jct. w/5130100	S edge of Unit 61A	1.52						P					
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Contract Road Maintenance Requirements Summary (continued)

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications										
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5130176	Jct. w/5130175	N end of Unit 26	0.49					P		P	P			
5130177	Jct. w/5130176	End of road	0.20					P		P	P			
5130178	Jct. w/5130176	NW corner of Unit 26A	0.53					P		P	P			
5130180	Jct. w/5130100	S edge of Unit 143	0.18					P		P	P			
5200025	Jct. w/County Rd. (Cub Cr.)	Jct. w/5200035&040	1.28						P					
5200030	Jct. w/5200025	Jct. 5200030-1.26L-1	1.70						P					
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5200045	Jct. w/5200040	End of road	0.20					P		P	P			
5220000	Jct. w/5130000	Jct. w/5220120	6.67			P	P		P					
5220120	Jct. w/5220000	End of road	0.40					P		P	P			
5220150	Jct. w/5220000	Jct. w/5220155	0.08					P		P	P			
5220162	Jct. w/5220000	W edge of Unit 19	0.22					P		P	P			
5220170	Jct. w/5220000	NW corner of Unit 20	0.27						P					
5220171	Jct. w/5220170	Jct. w/5220400	0.49					P		P	P			
5220200	SW corner of Unit 4	Jct. w/5220000	1.05			P	P		P					
5220250	Jct. w/5220200	E corner of Unit 4	0.29						P					
5220305	Jct. w/5220000	End of road	1.80			P	P		P					

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ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

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ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)
(continued)

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ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Column No.	Heading	Entry	Explanation
	Any	Blank	Except as otherwise described, no entry indicates Contractor is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of project related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Contractor shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Contractor shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Contractor shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Contractor may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Column No.	Heading	Entry	Explanation
5	Surfacing	Aggregate Grading	Contractor shall place surfacing on roads listed according to the grading indicated.
6	Dust abatement	OPT	Product selection is Contractor's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Contractor is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Contractor shall abate dust on the existing width
		Numbers	Contractor shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Contractor prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Contractor's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	P	P denotes that work is Contractor's Responsibility to perform.

SCHEDULE PURSUANT TO KT-GT.3.1.5# - PROJECT OPERATION SCHEDULE (5/05)

<u>Payment Unit</u>	<u>Operation Conditions</u>	<u>Purpose</u>
026,050,051,081,094 126,134,172, and (074,if summer logged)	Refer to Project #01 for specific timing of Invasive Weed Spraying.	Minimize the spread of Invasive Weeds.
026,126, and (074,if summer logged)	Off-road equipment must be cleaned before moving from each of these units.	Minimize the spread of Invasive Weeds.
051	Landings will be located inside of the unit.	Minimize the spread of Invasive Weeds.
024	Harvest during the first logging season	Minimize value loss by Douglas-fir bark beetles
ALL	Included Timber must be removed before October 15,2014.	Requirement for selling timber at flat rate
040,040A,050,050A, 051,057B,062,081, 094,104,105,110,115, 134,172,182,191,495, 496	Winter logging required	Protection of soils and water quality
004,005,015,018,019, 019a,020,024,026, 026a,126,143,146, 147,150,206,415	Summer logging required	Minimize impact to winter recreation.
All	Log haul prohibited on Weekends(from Friday 6 p.m. until Monday 2 a.m.)and Federal holidays.	Reduce conflicts with recreational (tourism)traffic and provide additional public safety during peak vacation periods.
057,57B,061,61A,062, 82A,134,172,182,191, 489,496	All operations prohibited from October 1 - December 31 except as authorized.	Non-motorized hunting access.

TABLE PURSUANT TO KT-GT.4.1# - SPECIFIC REQUIREMENTS (5/05)

FELLING METHODS

PAYMENT UNITS

Directional fell away from private
property, improvements, and
reserve trees.

ALL

FELLING EQUIPMENT

PAYMENT UNITS

N/A

N/A

TABLE PURSUANT TO KT-GT.4.2# - YARDING/SKIDDING REQUIREMENTS (5/05)

<u>YARDING/SKIDDING REQUIREMENTS</u>	<u>CUTTING UNITS</u>
Whole tree yarding is required.	All units except unit 18
Whole tree yarding is prohibited; branches and tops will be left in unit to provide a slash bed for burning.	Unit 18
<p><u>GENERAL:</u></p> <p>Skid trails will be located on old skid trails wherever possible.</p> <p>Adequate rub trees will be used to protect the residual stand and are to be left until after other included timber has been skidded.</p> <p>No machinery, including skidding and felling equipment will be permitted off designated skid trails.</p> <p>Skid trail width shall not exceed 12 feet.</p> <p>One end suspension of all logs is required during yarding and skidding operations.</p> <p>Whole tree yarding is required.</p> <p>Skid trails must be felled prior to the surrounding timber.</p> <p>Felling/skidding operations will be confined to slopes that are 35% or less except for pitches of 150 feet or less on steeper ground.</p>	All
<p><u>SUMMER LOGGING:</u></p> <p>Single pass trails will be placed a minimum of 40 feet apart except where they converge such as at landings.</p> <p>Multiple pass skid trails will be placed a minimum of 100 feet apart except where they converge such as at landings.</p> <p>To minimize soil compaction during periods of time when soils are saturated or standing water is present, ground-based equipment operation will avoid areas where these seasonal conditions exist.</p>	004,005,015,018, 019019a,020,024, 026,026a,126,143, 146,147,150,206,415

TABLE PURSUANT TO KT-GT.4.2# - YARDING/SKIDDING REQUIREMENTS (5/05)
(continued)

<u>YARDING/SKIDDING REQUIREMENTS</u>	<u>CUTTING UNITS</u>
<p><u>WINTER LOGGING:</u></p> <p>Winter logging operations are allowed when a snow pack or combination of snow pack and frozen ground is sufficient to prevent soil damage. Rutting, mixing of soil and snow, or visible displacement of the soil are signs that soil compaction or displacement are taking place.</p> <p>As a guideline, 8 inches of either compacted snow, hard frozen ground, or a combination of compacted snow and hard frozen ground can provide adequate protection. Construct trails prior to operations to allow the soil to freeze.</p> <p>In order to maintain the strength of this bearing surface, air temperatures should generally average less than 25 degrees Fahrenheit overnight and be no more than 35 degrees Fahrenheit during the day.</p> <p>Skid trails will be constructed prior to operations to allow the soil to freeze.</p> <p>Single and multiple pass skid trails will be placed a minimum of 40 feet apart except where they converge such as at landings.</p>	<p>040,040A,050,050A, 051,057B,062,081, 094,104,105,110,115,134, 172,182,191,495,496</p>

TABLE PURSUANT TO KT-GT.4.2# - YARDING/SKIDDING REQUIREMENTS (5/05)
(continued)

<u>YARDING/SKIDDING REQUIREMENTS</u>	<u>CUTTING UNITS</u>
<p><u>HAND FELLING AND WINCHLINE SKIDDING:</u></p> <p>Tracked or rubber-tired skidding (multiple pass) equipment is allowed with multiple pass trails spaced at a minimum of 100 feet apart except where they converge at a landing.</p> <p>Winchline skidders will be equipped with an integral arch or other means to suspend one end of all logs. A winching (line-pulling) capability is necessary if logs are winched to the skid trails. Grapple skidders are allowed if logs are first placed along skid trails.</p>	All Units
<p><u>MECHANIZED FELLING & SKIDDING:</u></p> <p>Harvester-processor, feller-buncher (single pass), and skidding (multiple pass) equipment is allowed with single and multiple pass trails spaced at a minimum of 40 feet apart except where they converge at a landing.</p> <p>Winchline skidders will be equipped with an integral arch or other means to suspend one end of all logs. A winching (line-pulling) capability is necessary if logs are winched to the skid trails. Grapple skidders are allowed if logs are placed by feller-buncher (or similar equipment) at skid trails.</p> <p>One end of all logs will be suspended during skidding.</p> <p>If a harvester-processor is used, additional equipment may be required to yard tree crowns to landings.</p>	All Units
<p><u>CUT-TO-LENGTH HARVESTING (CTL):</u></p> <p>Harvester-processor (single pass) and forwarder (multiple pass) equipment is allowed with single and multiple pass trails spaced at a minimum of 40 feet apart except where they converge at a landing.</p> <p>Forwarder must be capable of carrying logs free of the ground with log lengths kept to a minimum necessary to protect the residual stand.</p> <p>Cut-to-length equipment should generally be limited to slopes 30 percent or less. Additional equipment, as described for the previous harvesting systems, may be required to facilitate harvesting on slopes greater than 30 percent or to yard tree crowns to landings.</p>	All

APPLICATION SCHEDULE PURSUANT TO KT-GT.6.0# - EROSION CONTROL AND SOIL
TREATMENT BY CONTRACTOR (5/05)

	AREAS	SEED		FERTILIZER		MULCH	
PAYMENT UNIT OR UNIT NUMBER	A) SKID TRAILS B) FIRELINES C) TEMP. ROADS D) LANDINGS E) OTHER	APPLICATION		APPLICATION		APPLICATION	
		SPECIES <u>1/</u> MIXTURE	LBS/AC	TYPE <u>2/</u>	LBS/AC	TYPE <u>3/</u>	LBS/AC
All	C,D,E	Sheep Fescue	2				
All	C,D,E	Big Bluegrass	2				
All	C,D,E	Streambank Wheatgrass	9				
All	A	Slender Wheatgrass 4/	11				
All	E Within 100 feet of skid trail stream channel crossing					Weed- free, non- toxic straw or similar	Sufficient to cover a depth of two inches

1/ For projects in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:

1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

For projects in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The Contractor shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

Legumes must be inoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the inoculant.

APPLICATION SCHEDULE PURSUANT TO KT-GT.6.0# - EROSION CONTROL AND SOIL
TREATMENT BY CONTRACTOR (5/05)
(Continued)

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

2/ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.

3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's records.

4/ Contractor will supply this seed to the Forest Service. The seed will be mixed with seed supplied by Forest Service to create a seed mixture to be applied to skid trails by contractor. Contractor will co-ordinate with Contractor Administrator to ensure the timely delivery of the seed mixture and in sufficient quantities.

SPECIFICATIONS PURSUANT TO KT-GT.7.4.2#-SLASH TREATMENT REQUIREMENTS
(OPTION 2) (6/10)

LANDING AREA SLASH

Piling of Slash at Landings and Decking Areas

In accordance with Provision KT-GT.7.4.2#, Contractor shall pile slash by machine or hand on all landings or decking areas.

Piles shall be as compact as possible and shall be free of non-combustible material.

Piles will be located so that burning will cause minimal damage to standing green trees. Normally, this will be constructed to be at least 20 feet from the drip line of any standing green tree. Avoid placing landings within 300 feet of private property if feasible.

Machine used for piling shall be equipped with a brush blade, rake grapple or tongs. The teeth on the blade or rake must extend at least 12 inches below the lower edge of the blade or rake, and must have a maximum of 18 inches and a minimum of 16 inches spacing between the teeth. Total blade or rake width shall not exceed 10 feet.

A loader or similar machine equipped with a grapple or tongs may be necessary to accomplish the objectives of this specification.

Disposal of Temporary Road Slash

In accordance with KT-GT.7.4#, Contractor shall dispose of slash created by the construction of temporary roads, as agreed to by the Forest Service.

Slash may be scattered, piled or windrowed as agreed to. Agreement on alternative methods of disposal must be reached prior to their implementation.

Piling will be done in accordance with the specifications for Piling of Slash at Landings and Decking Areas.

Slash shall not be buried beneath temporary roads.

Leave a small pile of slash at each landing so that this material is available to scatter on the burn pile areas following burning. Pieces left should be small enough to be moved by one or two people. Preferred slash pieces are 2 to 6 inches in diameter and 4 to 8 feet in length, but pieces from 1 inch diameter to 8 inches diameter and from 2 feet in length to 10 feet in length are acceptable. Approximately 2 to 3 tons will be needed for a landing 1/4 acre in size. If landing is larger than 1/4 acre, provide the additional pieces as needed. Existing or new landings used by contractor that are within Riparian Reserves will also require approximately 3 to 4 tons so that slash can be scattered over the entire landing area.

This slash material should not be left in close proximity to the landing pile(s) to avoid ignition when the landing pile(s) is(are) burned. Contractor is not required to cut pieces to desired lengths nor to pull slash material from the unit in order to have the desired amounts.

Fireline Construction

Contractor shall construct machine fireline as shown on the Contract Area Map. Fireline will be constructed to serve as a control line for prescribed burning. The Forest Service will designate location of fireline on the ground prior to construction. Fireline shall be adequately clear of slash, vegetation, and other flammable debris, while minimizing soil displacement.

The following requirements shall apply when machine fireline:

1. Fireline shall be no less than 3 and no more than 4 feet in width. Surface vegetation will be scraped away while minimizing damage to live root crowns of native grasses and shrubs to allow for rapid post-fire recovery of the fireline. Fireline is not required where a unit boundary follows along a system road.
2. Slash, brush, and debris along the perimeter of the cutting unit and within 50 feet of the fireline shall be lopped and scattered to a height of 1 foot or less.
3. No slash, brush or similar debris shall be buried in or under berms created during the construction of these firelines, unless berms are on the outer side of the control line.
4. Waterbars will be installed angling toward the burn unit at the locations designated by the Forest Service.

KT-GT.9# - STEWARDSHIP PROJECTS. (9/04) Performance of stewardship projects shall be in accordance with the following specifications.

Mandatory Projects

Mandatory Stewardship Project Number 01 - Noxious Weed Treatment - See Attachment A

Optional Projects

Optional Stewardship Project Number 02 - Treatment of Slash - See Attachment B

Optional Stewardship Project Number 03 - Noxious Weed Treatment - See Attachment A

Noxious Weed Treatment

The end result of this project is to reduce the incidence of noxious weeds of concern, and limit the opportunity for their spread to other locations.

There will be mandatory spraying of herbicide on 28 gross acres within specific sites as shown on the Wrangle STWD Contract Area Map and listed in Table 2. . This will include spraying 24 acres of road lengths adjacent to payment units with infestations and an area in Unit 50 of 4 acres, but is not adjacent to any road. There may also be up to another 114 gross acres of optional treatment that are shown on the Wrangle Service Item Map for a total of 142 gross acres. The spray area is described as a strip 15 feet wide from the edge of the driving surface of the road along both sides of the road. All weed control measures shall comply with all herbicide labels and the applicable laws and regulations of the State of Washington as well as the Okanogan-Wenatchee National Forest Forest-wide Invasive Plant Treatment Environmental Impact Statement (**pending completion in 2012**) which tiers to the Region 6 Invasive Plant Program--Preventing and Managing Invasive Plants EIS and ROD signed 10/11/05.

Payment will be based on gross acres treated.

A Daily Spray Report which includes the "Pesticide Application Record" form along with map of application areas shall be completed daily by the Contractor. It shall be available for inspection by the Contracting Administrator at any time and at a minimum submitted weekly. The Contractor shall provide other Washington State applicator requirement forms. In addition, the Contractor shall keep the Contracting Administrator informed of their progress on a daily basis.

The Contractor shall perform spraying by spot spraying of herbicides with backpack spray units, with optional truck, and/or ATV mounted spot spray units where suitable (no broadcast application with a boom sprayer). Contractor shall furnish all materials, equipment, labor, supervision, transportation, operating supplies, and incidentals necessary to safely apply herbicides in accordance with the Contract specifications, terms, conditions specified on the herbicide label(s), and State of Washington rules and regulations. The Forest Service (FS) will supply the herbicides and surfactants.

Timing of herbicide treatment

Treatment shall occur before the last date to treat to prevent seed as displayed in Table 1. If harvest activities need to be completed prior to spraying, ensure equipment is cleaned and sites are treated post-harvest prior to seed prevention date. Forest officer may adjust seed prevention dates depending on current year variability flowering period.

RATE OF PERFORMANCE

The Contractor shall work at a pace to ensure timely completion of the sites and to prosecute the work diligently and effectively. Expected rate of performance for work ordered shall vary depending on the current year's density and distribution of invasive plants within each site. Weed densities can be highly variable depending on the treatment effectiveness of previous treatments and annual fluctuations in precipitation. Expected rate of performance also varies with location and accessibility of the project sites. Due to the amount of ground to cover to treat the estimated acres, the Government will acknowledge travel time during the course of spraying.

Target Species

The target species that will make up the bulk of the acres treated are oxeye daisy, diffuse knapweed, sulfur cinquefoil, and common tansy. At a minimum, 80 percent of the target species as described below shall show mortality or lethal effects from treatment such as wilting, curling or discoloration.

TABLE 1 Weed of Concern and Herbicide Specifications

Target Weed species	Active Ingredient	Trade Names*	Application Rates (fluid oz./acre)	Site type	Flowering period	Last date to treat to prevent seed
Oxeye Daisy <i>Leucanthemum vulgare</i> (LEVU)	Aminopyralid	Milestone	4-6 fluid ounces	Upland and riparian	June-September	June 30
Diffuse Knapweed <i>Centaurea diffusa</i> (CEDI3)	Aminopyralid	Milestone	4-7 fluid ounces	Upland and riparian	June-July	June 30
Sulphur cinquefoil <i>Potentilla recta</i> (PORE5)	Aminopyralid	Milestone	4-7 fluid ounces	Upland and riparian	May-July	June 30
Common Tansy <i>Tanacetum vulgare</i> (TAVU)	Metsulfuron methyl	Escort, Ally	2 ounces (Not Fluid ounces)	Upland only	July-October	July 30
	Aminopyralid	Milestone	4-7 fluid ounces	Riparian		

Milestone – Aminopyralid: apply at the rate of 5 fl. oz. per acre. The Contractor shall mix using the following rates per acre.

Amount of Milestone (in mL) to mix in one gallon of water

Gallons per Acre	mL of Milestone /gal at application rate of 5 fluid oz./acre
40	3.8
50	3.0
60	2.5
70	2.1
80	1.9

Escort, Ally of Metsulfuron methyl: shall be applied at a rate of 2 ounces/acres (not fluid ounces) applying 40 gallons solution per acre. Mixing option: Mix one gram of Escort per gallon of water along with a surfactant. Spray to the point of wetting the entire surface of the target weed, approximately 40 gallons of solution per acre.

Mixing Standards

1. Wetting Agent shall be used in all applications supplied by FS.
2. Carrier: Water shall be used as a carrier.
3. Dye/Marker: The dye provided by the FS must be visible on the sprayed sites for a minimum of 24 hours after application.

4. Water use for spray mixing will be from a clean private source or from an approved clean source designated by the FS. Particulates in the water can compromise the effectiveness of the herbicide. The contractor shall not use water from springs, streams, lakes, and ponds.
5. Herbicide loading and mixing operations will not occur within 100 feet of any open water source. Mixing, loading, and equipment cleaning shall be done more than 200 feet from private land. Applicators will mix only those quantities of herbicides that can reasonably be used in a day.
6. All empty containers will be triple rinsed and disposed of by spraying near application sites that do not exceed application rates on the spray site and shall be punctured. Disposal of herbicide containers shall be done at approved sites and in accordance with local, state and federal regulations.

Spraying Standards

1. Spray drift shall be minimized.
2. Herbicide shall not be applied to any area where there are no target species.
3. The Contractor shall minimize damage to non-target vegetation.
4. The Contractor shall treat all target species with the appropriate herbicide at a rate of application that does not exceed label direction.
5. The contractor shall not apply herbicide closer than 100' to any occupied campsite.
6. Contractor's activity will not contribute to measurable or noticeable erosion, extensive or localized soil disturbance, or long term physical damage to desirable vegetation.
7. The Contractor shall obtain and monitor local weather forecast for the proposed treatment area prior to applying herbicides. Weather conditions will be monitored so that applications comply with label recommendations. Spraying activities shall not occur if precipitation is expected (NOAA weather forecast) within 4 to 6 hours.
8. Buffer strips may be designated by the Government during operations to protect certain areas where no application of herbicide shall occur. Designation may be verbally, with flagging or identified on maps depending on area being protected. Locations of buffer strips and how they will be identified will be discussed at pre-work meeting.
9. Herbicide application operations shall not occur when any one of the following conditions exists in a treatment area:
 - A. Frost, snow, or ice covers brush or target plants.
 - B. Foliage of target plants is wet.

Herbicide Application Guidelines:

1. General Application
 - Post all herbicide treated areas with signs provided by FS. Areas designated as a special public concern at the pre-work meeting shall be signed two days prior to treatment.
2. Riparian and Wetland Habitats (areas within 100 feet of surface water)
 - A. Use only hand spot spray with power equipment or backpack sprayer
 - B. **Use only Milestone** up to high water mark on lakes and wetlands and to the bank full mark on perennial streams. No buffer on dry intermittent streams.
 - C. Apply herbicide only when wind speeds are less than 5 miles per hour.

Government-Furnished Property (GFP)

The Government will provide the following item(s) of Government property to the Contractor for use in the performance of this contract. This property shall be used and maintained by the Contractor in accordance with the provisions of the "Government Property" FAR clause contained elsewhere in the contract.

Item	Description	Where, When, How
Herbicides, surfactants, dye	See TABLE 1 Weed of Concern and Herbicide Specifications	See TABLE 1 Weed of Concern and Herbicide Specifications
Project Maps	Maps of treatment areas with access roads	Attach to this contract
Site specific field maps	Detailed maps that show the location of the weed sites and the distribution of the weed plants within the site.	Provided to the Contract at the post award meeting.
Access behind locked gates	Some areas are behind Forest road closures (locked gates). The Government will provide access through locked gates unless walk-ins are required. The Contractor will be required to furnish their own lock and keep the gates locked at all times.	During period unit is being treated. Location and time for delivery will be agreed to as these items are necessary.
Signs	Post Treatment Area	Will be posted in all areas that have been treated.

Work Standards

The contractor shall exercise care in work methods to prevent unnecessary damage to Non-target species. Non-target species is any vegetation that is NOT listed as a target species. Mortality and herbicide effects on these species should be less than 10 percent of the individuals encountered within the sites.

All work under this contract shall be performed in a skillful and workmanlike manner.

The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity, and shall be responsible for taking such disciplinary action with respect to their employees as may be necessary.

The application environments are Forest Service and designated private roads, trails, skid trails, landing areas and public parking areas, right-of-ways, and ditch lines. Areas designated by the Forest Service may be accessible by motorized vehicles or inaccessible with motorized vehicles which may require back-pack spraying. All county roads are excluded from this requirement.

ATV trails -To include all single or double track trails, 4 feet to either side of the trail unless otherwise designated. Distance shall be measured from the edge of the tread of the trail.

Table 2

Harvest Unit	Linear ft. of roads within Harvest Units with weeds of concern
126	2098
134	3309
172	536
26	6462
50	1892
51	6762
74	1843
81	5022
94	6779
Total Length	34707.3 ft. (24 acres)

Payment units that have infestations away from the road and that are shown on the Contract Area Map are listed in the chart below. Site maps are available.

Unit #	Gross Acres
50	4

Treatment of Slash**End Result**

The objectives of this project are to minimize soil compaction, retain material in units for nutrient recycling and reduce the risk of damage to the residual stand from insects, disease and catastrophic fire. This project will treat up to 354 acres of slash. Acres to be treated will be determined post-harvest by the Forest Service. Payment will be made on actual acres treated and may not be the total unit acres listed in **Table 1**. **Table 1** shows where machine piling may occur, and respective acres, fuel loading specs, as well as photo references.

Table 1. Slash Treatment

Environmental Zone	Unit (acres)	Fuel loading requirements (Photo reference)
Cool Dry	04 (31 acres), 05 (87 acres), 18 (9 acres), 20 (23 acres), 146 (10 acres), 150 (11 acres).	Units in this environmental zone will have up to 12 tons/acre of woody debris left after treatments. Up to one-third of this total (about 4 tons/acre) can be less than 3" diameter, and the remaining amount (up to 8 tons/acre) is 3" diameter or greater. Photos 1 and 2 below demonstrate this desired fuel loading.
Hot Dry and Hot-Warm Dry	19 (16 acres), 24 (47 acres), 40 (26 acres), 81 (63 acres), 95A (9 acres), 126 (36 acres), 147 (20 acres), 179 (6 acres), 415 (23 acres), 479 (2 acres).	Units in these environmental zones will have up to 7 tons/acre of woody debris left after treatments. Up to one-third of this total (about 2.5 tons/acre) can be less than 3" diameter, and the remaining amount (up to 5 tons/acre) is 3" diameter or greater. Photos 3 and 4 below demonstrate this desired fuel loading.
Cool Dry	18 (9)	This unit is a regeneration harvest and will be underburned after harvest. Slash will be lopped and scattered to form a continuous fuel bed that is a maximum height of 2 feet.

Photo 1.



Photo 2.



1-MC-3

Photo 3.



Photo 4.

**Slash Treatment Specifications:****A. Pullback**

1. Under this contract, slash which falls outside the harvest unit boundaries shall be pulled back into the unit(s).
2. Under this contract, slash shall be pulled back at least 6 feet from the edge of drivable road surfaces along all roads shown on the Contract Area Map and Service Item Map.
3. All slash shall be pulled back at least 6 feet from fences and 25 feet in all directions from culverts or livestock watering developments which may exist in the contract area.
4. Under this contract, slash that is against trees equal to or greater than 20 DBH and is more than 2 feet deep will require pullback of 5 feet from base of trees.

B. Bucking, Lopping and Scattering

In areas measuring no greater than 1/10 acre, (37.5 foot radius), where there is insufficient slash to construct a pile meeting the requirements described below, slash treatment operations performed under this contract shall be bucked into 4 foot lengths, lopped and then scattered, such that the highest point of the slash is within 18 inches of the ground.

Hand-piling Slash Specifications

Hand piling or machine piling will treat fuel loadings that exceed those listed in Table 1. Slash Treatment

1. Where handpiling occurs, slash shall be handpiled except as noted below:
 - a. Sound wood logs as well as partially decomposed logs greater than 6 inches in diameter shall not be piled.
2. In intermittent stream channels, hand piles will not be constructed within 25 feet of the active channel edge or within the inner gorge of the channel, whichever is greater. In perennial non-fish and fish-bearing channels, no pile construction shall occur within 50 feet of the channel or within the inner gorge, whichever is greater.
3. Landing piles shall be constructed a minimum of 20 feet away from the drip line of the crown of existing crop trees as conditions permit. Piles shall not be constructed on top of stumps or within the intake/discharge areas of culverts.
4. Piles shall not be constructed in or on system roads or spur roads. Piles shall not be constructed on roads, ski trails, or bike trails identified on the Wrangle Contract Area Map or the Wrangle Service Item Map.
5. Piles shall be constructed such that the long axis of the pile is perpendicular to the contour of the units slope. Piles shall be constructed with vertical sides and a base wide enough to keep them from toppling.

Piles shall be constructed in accordance with pullback requirements set forth in Section **A. Pullback**.

6. Piles shall be constructed as compactly as possible, with a core of materials 2" and smaller in diameter in the lower 25% of the pile to act as kindling, and with heavier, larger diameter material placed on top of the pile.

Standard pile size is 4 feet wide by 4 feet long by 4 feet tall. Slash exceeding more than 6 feet in length shall be bucked into 4 foot lengths before piling.

Pile size may increase by one-half foot for each additional foot the pile is away from any reserve tree, as shown in the **Table 2**. No pile size shall be greater than stated below.

Table 2

Distance from a reserve tree drip line	Adjusted pile size(in feet)
5 feet	4.5 x 4.5 x 4.5
6 feet	5 x 5 x 5
8 feet	6 x 6 x 6
10 feet	7 x 7 x 7

7. The contractor shall cover all hand piles with waterproof material **furnished by the contractor**. Covering material shall not be petroleum based. Waterproof material shall be placed on top of each pile during construction when the pile is approximately 75% completed. This material must be at least 4 feet wide and cover the entire top surface of the pile. Care shall be taken not to puncture the covering material. The waterproof material shall then be secured with slash material comprising the remaining 25% of the pile. This will assure that the waterproof material is not affected by wind and will protect the majority of the pile from rain and snow.
8. Material protruding out of the pile beyond the compact portion shall be bucked off and added to the pile to facilitate disposal by burning.
12. Any piles not meeting specifications shall be reconstructed at no additional cost to the Government.

Machine-piling Slash Specifications

The following piling specifications shall apply when excavator piling is used as a method for meeting desired end results.

Equipment Specifications

A. Excavator piling equipment. The excavator shall be equipped to meet all applicable health and safety laws of the State of Washington. Additionally, the excavator shall meet the following specifications:

1. The excavator shall be capable of a minimum reach of approximately 25 feet from the centerline of the excavator.
2. Excavator shall be equipped with a hydraulic thumb mechanism or a brush rake grapple.
3. Excavator weight distribution shall not exceed ground pressure of 7.5 pounds per square inch.

Excavator Piling Specifications:

- A. Where slash is machine piled, fuel loadings greater than those listed in **Table 1. Slash Treatment** shall be piled except as noted below:
 1. Sound wood logs as well as partially decomposed logs greater than 6 inches in diameter shall not be piled.
 2. Thickets of healthy, vigorous sapling and pole sized conifer trees less than one acre in size which have been sanitized, released, or otherwise thinned need not be entered for the purpose of machine piling slash if the area all around the thicket can be piled.
 3. No machine piles are allowed within Riparian Reserves as shown on the Wrangle Contract Area Map or the Wrangle Service Item Map.
 4. Areas of greater than 35% slope will not be included in the piling operation.
- B. Piling Operations
 1. No excavator piles will be created within 30 feet of any snag or live tree greater than or equal to 20" DBH.

2. Piling equipment shall operate on existing skid trails or slash wherever possible to limit detrimental soil effects.
 3. All piles shall be constructed as compactly as possible. Piles must be outside of the drip line of leave trees. Where overstory trees are tightly spaced, piles should not exceed a maximum of 15 ft. in diameter and will be at least 8 feet high, but no more than 15 ft. high. In areas where there are large openings, piles may be as large as 20' X 20' as long as they are at least 15 ft. from the drip line of leave trees. Where possible, piles shall be constructed upslope from trees. Piles shall not be constructed on top of wood logs, in drainage ditches or within channel bottoms or above culvert intakes. No dirt other than that which adheres to the bark of piled material shall be included in the piles. All material placed into a pile shall be contained within the general contour of that pile.
 4. Piles not meeting all of the above specifications shall be re-piled at no increase in price or contract time allowed. Extreme caution must be exercised at all times during the piling operation in order to minimize damage to leave trees.
- C. Water-bars or other erosion control devices removed to facilitate piling operations shall be reconstructed as soon as piling has been completed in the area.
- D. Earth berms > 6" created by short radius turns shall be returned to the contour of the surrounding area
- E. All refueling, repairs and maintenance shall be performed on existing landings. Fuel and repair vehicles are not permitted to operate off system roads shown on the Wrangle Contract Area Map without the written consent of the Contracting Officer.

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FOREST SERVICE

SPECIFICATIONS FOR

MAINTENANCE OF

ROADS IN

STEWARDSHIP CONTRACTS

PACIFIC NORTHWEST REGION

EM 7730-20

04/09/2010

STEWARDSHIP CONTRACT

ROAD MAINTENANCE SPECIFICATIONS

<u>SPEC#</u>	<u>SUBJECT</u> <u>DESCRIPTION</u>	<u>DATE</u>
T-803	Snow Removal	05/07/2007
T-811	Blading	10/07/2007
T-812	Dust	05/07/2009
	Abatement	
T-813	Surfacing	10/07/2007
T-831	Ditch	10/07/2007
	Maintenance	
T-832	Remove And	05/07/2007
	End Haul	
	Materials	
T-834	Drainage	10/07/2007
	Structure	
	Maintenance	
T-835	Roadway	05/07/2007
	Drainage	
	Maintenance	
T-836	Maintenance	05/07/2007
	for Limited	
	Use	
T-838	Maintenance	05/07/2007
	for High	
	Clearance	
	Vehicle Use	
T-839	Maintenance	05/07/2007
	for Project	
	Use	
T-841	Vegetation	05/07/2007

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T-842	Establishment Cutting Roadway Vegetation	10/07/2007
T-851	Logging Out	05/07/2007
T-854	Treatment and Disposal of Danger Trees	04/09/2010
T-891	Water Supply and Watering	05/07/2007
T-892	Bituminous Products	05/07/2007

SUPPORTING DOCUMENTS FOR MAINTENANCE SPECIFICATIONS

<u>SUBJECT</u> <u>DESCRIPTION</u>	<u>DATE</u>
Cover Content	04/08
Preface	
Cover Pages	01/08
Intent Use Guide	01/08

NO DRAWINGS ACCOMPANY THESE SPECIFICATIONS.

PREFACE

The Pacific Northwest Region of the Forest Service has developed this book for use in the preparation and administration of maintenance requirements included in Stewardship Contracts.

Included are the Standard Specifications (Sections) that commonly apply in Stewardship Contracts. Conditions and requirements specific to individual projects are identified in the Supplemental Specifications.

Supplemental Specifications, which do not change the intent of the parent section, may be approved by the Forests.

This book is available from the Supervisor's Office of any National Forest in Region 6.

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Maintenance Level Requirements

Maintenance Levels - The following are abbreviated descriptions of maintenance levels.

1. Maintenance Level II - Conditions are suitable for high clearance vehicle travel at prudent driving speeds less than 15 mph. Road is maintained in accordance with Section T-836.
2. Maintenance Level III - Minimum conditions are provided for passenger car use. Surface provides moderately convenient travel at prudent driving speeds between 15 and 25 mph with corresponding surface roughness tolerated. The surface meets the following conditions.
 - a. Potholes or washboard in wheel tracks normally do not exceed 2 inches in depth, and should not be of such frequency that traffic tends to widen traveled way to avoid the deformities.
 - b. Surface is drained and substantially retains its cross slope or crown.
 - c. Wheel ruts caused by use shall not be in excess of 3 inches in depth on horizontal curves.
3. Maintenance Level IV - Higher consideration than in Level III is given to comfort and convenience of the passenger car and commercial user at prudent driving speeds above 25 mph. The surface will meet the following conditions:
 - a. Substantially free of chuckholes, wheel ruts, or washboard corrugations. Surface is drained and retains its cross slope or crown.
 - b. Berms of loose surfacing caused by use do not generally exist, except on horizontal curves berms up to 2 inches in depth

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may be present.

4. Maintenance Level V - the highest degree of consideration is given to user comfort and convenience. Roads are commonly paved or continually dust controlled for travel at speeds of nominally 35 mph. Generally, the surface will meet the following conditions:
 - a. Level IV plus: Surface is consolidated except for limited periods immediately preceding maintenance performance.
 - b. Berms are not acceptable.

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T-803 - SNOW REMOVAL (05/07)

803.01 Description

This Section provides for removal of snow from roads to facilitate logging operations and safe use.

803.02 Maintenance Requirements

- (1) Erect signs required by the Sign Plan in the SUPPLEMENTAL SPECIFICATIONS.
- (2) Perform work in a manner to preserve and protect roads and appurtenances, and prevent erosion damage to roads, streams, and other Forest values.
- (3) Do not undercut banks. Do not blade gravel or other surfacing material off the road.
- (4) Keep roadbed drainage ditches, drain dips, and culverts functional when needed during operations and upon completion of operations.
- (5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width.
- (6) Space, construct, and maintain drainage holes in the dike of snow or berm caused by snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills.
- (7) Close roads to wheeled vehicles at times and in the manner specified in K(T)-F(T).1.2# or the Road Rules document.
- (8) Upon seasonal completion of Contractor's Operations, effectively block the road by a snow barricade, unless otherwise approved by the Contracting Officer.
- (9) Remove snow for either public access or project use as established in the SUPPLEMENTAL SPECIFICATIONS and meet the following requirements:
 - (a) Removal for Public Access (Method JU) - Remove snow from all of the traveled way, including turnouts, for safe and efficient use for both timber transportation and the public. Remove intruding windfalls, debris, or slough and slide material for the full width of the traveled way and deposit out of drainage's at locations designated by the Contracting Officer.
 - (b) Removal for Project Use (Method TS) - Remove snow from all or part of the traveled way, including sufficient turnouts for safe and efficient use for timber transportation and to protect the road. Remove intruding windfalls, debris or

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slough and slide material and dispose of only as necessary to provide passage for timber transportation. Removed materials may be deposited off the traveled way or outside the traveled way at locations designated by the Contracting Officer.

- (10) When directed by the Contracting Officer, replace in kind, within sixty (60) days after the start of Normal Operating Season, any surfacing material which has been bladed off the road, unless otherwise agreed. Contracting Officer will notify Contractor in writing as to the cubic yard equivalent of bladed off material by the start of the normal operating season.

803.03 Equipment

Contractor may use any type of equipment to remove snow, providing:

- a. Type or use of equipment is not restricted in K(T)-F(T).1.2# or Road Rules document.
- b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road.
- c. The use of plows or dozers to remove snow requires written approval by the Contracting Officer. Equip plows or dozers with shoes or runners to keep the dozer blade a minimum of 2 inches above the road surface unless otherwise approved by the Contracting Officer.

803.04 Ice Control

Ice control may be performed by Contractor when approved by the Contracting Officer in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

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T-812 - DUST ABATEMENT (05/09)

812.01 Description

This work consists of applying dust palliatives on roads shown in the Road Listing.

812.02 Materials

The dust palliative materials are shown in the Road Listing, unless shown as Optional for Contractor's election. If Optional is shown then the Contractor may use any of the products listed below. Dust palliative materials shall meet the following requirements:

- A. Water (H2O) will be obtained from sources SHOWN ON THE DRAWINGS or listed in the SUPPLEMENTAL SPECIFICATIONS to Section T-891 Water Supply, unless otherwise approved by the Contracting Officer.
- B. Lignin Sulfonate (LIG S) Provide certification that the material meets the requirements of Subsection 725.20 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03)" and the Forest Service Supplemental Specification 725.20.
- C. Magnesium Chloride (MG CL2) Provide certification that that the material meets the requirements of Subsection 725.02 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP03)" and the Forest Service Supplemental Specification 725.02.
- D. Calcium Chloride Brine (CA CL2B). Provide certification that the material meets the requirements of Subsection 725.02 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP03)" and the Forest Service Supplemental Specification 725.02.
- E. Calcium Chloride Flake (CA CL2F). Provide certification that the material meets the requirements of Subsection 725.02 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP03)" and the Forest Service Supplemental Specification 725.02.
- F. Bituminous dust palliatives. Manufacture materials specifically for dust abatement purposes which conform to the requirements of Section T-892 for each listed road in the Road Listing.

812.03 Methods

As shown in the SUPPLEMENTAL SPECIFICATIONS, Contractor may utilize a variety of methods to decrease or eliminate the need for dust abatement.

812.04 Equipment

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- A. Design, equip, and operate application equipment for spreading dust palliatives so that the material is uniformly applied at the rate and traveled way widths shown in the Road Listing.
- B. For bituminous palliatives provide equipment that heats and applies the bituminous material. Provide a bituminous distributor that is self-powered and mounted on pneumatic tires and equipped with a pump and circulating spray bar, a tachometer, pressure gauges, accurate volume measuring devices such as visual volume dial or gauge calibrated to the tank, and a thermometer. Provide equipment which is a standard commercial type of proven performance.
- C. Accomplish dilution of dust palliatives within the application vehicle with the water source protected from contamination. Circulate the resulting mixture at least five (5) minutes to ensure uniform mixing prior to application.

812.05 Maintenance Requirements

- A. Limit water applications to abatement for hauling vehicles and provide at a frequency and rate which controls dust such that vehicle tail lights and turn signals remain visible. Vary rates of application as needed but remain low enough to avoid forming rivulets. Accomplish the abatement by sufficient frequency of application without saturating and softening the traveled way. Compacted or glazed road surface or wheel tracks may be loosened as needed for water penetration.
- B. Apply all other dust palliatives at the rates and times agreeable to the Contracting Officer. The Road Listing shows the expected average application rate and may be varied to meet field conditions. Lignin Sulfonate, Magnesium Chloride, and Calcium Chloride Brine are listed as gallons per square foot of the undiluted product at fifty (50), thirty-three (33), and thirty-eight (38) percent respectively. Calcium Chloride Flake is listed in pounds per square foot at seventy-seven (77) percent concentration.
- C. Apply bituminous dust palliatives only when the surface to be treated contains sufficient moisture to obtain uniform distribution of the dust palliative unless noted differently in the SUPPLEMENTAL SPECIFICATIONS.
- D. Prior to initial application, when needed, the road will be bladed and shaped under Section T-811, Blading.
- E. Required subsequent applications may be applied to the existing road surface without blading.
- F. Dust palliatives will not be applied in a manner that spatters or mars adjacent structures or trees, or placed on or across cattleguards or bridges. Discharge dust abatement material only on roads approved by the Contracting Officer.

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T-831 - DITCH MAINTENANCE (10/07)

831.01 Description

This Section provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the ROAD LISTING or DESIGNATED ON THE GROUND.

831.02 Maintenance Requirements

- A. Maintain ditches by removing rock, soil, wood, and other materials. Maintained ditches shall function to meet the intent of the original design.
- B. Undercutting backslopes during removal operations is not permitted.
- C. Suitable material up to 4 inches in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.
- D. Do not blend material from ditch cleaning operations into aggregate surfaced roads. Do not blade material across aggregate or bituminous surfaced roads, unless approved in writing by the Contracting Officer.
- E. Haul material in excess of 831.02 D or subject to 831.02 E to a designated waste area under Section T-832. Remove excess materials temporarily stored on the ditch slope or edge of the shoulder daily.
- F. Remove limbs and wood chunks in excess of 12 inches in length or 3 inches in diameter from ditches and place outside the roadway.
- G. Clean paved surfaces of all materials resulting from ditch maintenance work.
- H. Shape lead-off ditches to drain away from the traveled way.
- I. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below:

Invasive Species of Concern Prevention Practices
<i>Road blading, brushing and ditch cleaning in areas with high concentrations of invasive species of concern will be done in consultation with the Contract Administrator, incorporating invasive plant prevention practices recommended by the District and Forest level Invasive Plant Specialist.</i>

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T-834 - DRAINAGE STRUCTURE MAINTENANCE (10/07)

834.01 Description

This work consists of cleaning and reconditioning culverts and other drainage structures.

834.02 Maintenance Requirements

- A. Clean drainage structures, inlet structures, culverts, catch basins, and outlet channels specified in the SUPPLEMENTAL SPECIFICATIONS. Clean catch basins by removing the material within the area SHOWN ON THE DRAWINGS.
- B. Clean the transition from the ditch line to the catch basin a distance of 10 feet from the catch basin. Clean outlet channels and lead-off ditches a distance of 6 feet. Remove and place debris and vegetation so as to not enter the channel or ditch, or obstruct traffic. Haul debris and vegetation to a designated disposal area in accordance with Section T-832.
- C. Hydraulic flushing of drainage structures is not allowed unless provided for in the SUPPLEMENTAL SPECIFICATIONS.
- D. Cleaning and reconditioning are limited to the first 3 feet of inlet and outlet, determined along the top of the structure. Recondition culvert inlet and outlet by field methods such as jacking out or cutting away damaged metal which obstructs flow. Treat cut edges with a zinc rich coating, in accordance with AASHTO M 36M and ASTM A 849.
- E. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
<i>Road blading, brushing and ditch cleaning in areas with high concentrations of invasive species of concern will be done in consultation with the Contract Administrator, incorporating invasive plant prevention practices recommended by the District and Forest level Invasive Plant Specialist.</i>

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T-835 - ROADWAY DRAINAGE MAINTENANCE (05/07)

835.01 Description

This work consists of providing post haul drainage on roads.

835.02 Maintenance Requirements

A. Drainage

1. Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles. Repair and reinstall water bars, barriers or berms existing prior to the Contractor's operation. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.

2. Continuous blade shaping of the roadbed is not required under this specification.

3. Work to be done at staked locations shall be as indicated on the stake and/or stated in SUPPLEMENTAL SPECIFICATIONS:

4. Any of the following methods are acceptable for use at eroded or rutted locations:

Method A: Outsloping the roadbed at not less than 1/2 inch per yard of width.

Method B: Insloping the roadbed at not less than 1/2 inch per yard of.

Method C: Water bar roadbed at locations staked on the ground and construct as SHOWN ON THE DRAWINGS or as included in SUPPLEMENTAL SPECIFICATIONS.

5. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet of the structure.

6. Either clean culverts and other fabricated structures to provide drainage from road ditches and make the ditch functional or provide water bar(s) across the roadbed. Removed structures shall become Contractor's property to be removed from National Forest System land. Remove and replace any Contractor-installed temporary drainage structures with a water bar.

B. Slides, Slumps and Slough

1. Slides and slough may be left in place, provided they do not potentially impound water or divert water from watercourses. As necessary, reshape the various surfaces to provide drainage.

2. Provide drainage to effectively decrease or eliminate the entry of surface water into slides, slumps, and roadbed surface cracks. Place berms, waterbars or ditches as needed to intercept and remove

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runoff water from the roadbed. Surface seal cracks by covering over with native soil materials to prevent additional water entry and compact with equipment tires.

C. Entrance Devices

Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles having four (4) wheels and a width in excess of 50 inches.

D. Seeding

Seed and fertilize all disturbed areas in accordance with requirements set forth in Section T-841.

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SPECIAL PROJECT SPECIFICATION T-835-01F WATERBAR DETAIL

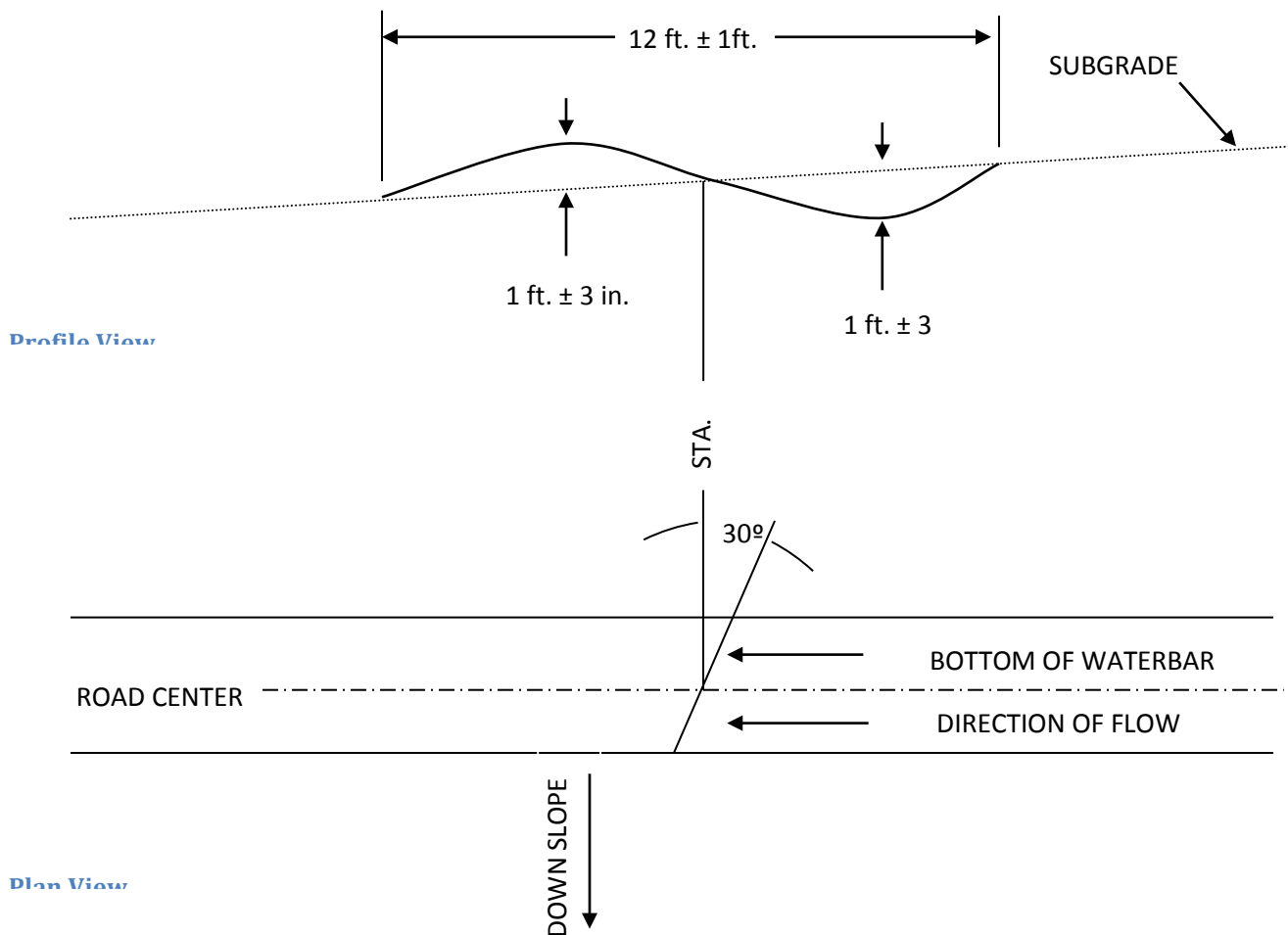
A. Drainage Structure Placement

Waterbar roadbed at intervals based on the below table or as directed by Forest Service:

Road Grade	Minimum Waterbar Spacing
0-3%	200 feet
3-6%	175 feet
6-9%	150 feet
9-12%	125 feet
12-15%	100 feet
Greater than 15%	75 feet

B. Typical Waterbar Detail

TYPICAL WATERBAR
(no scale)



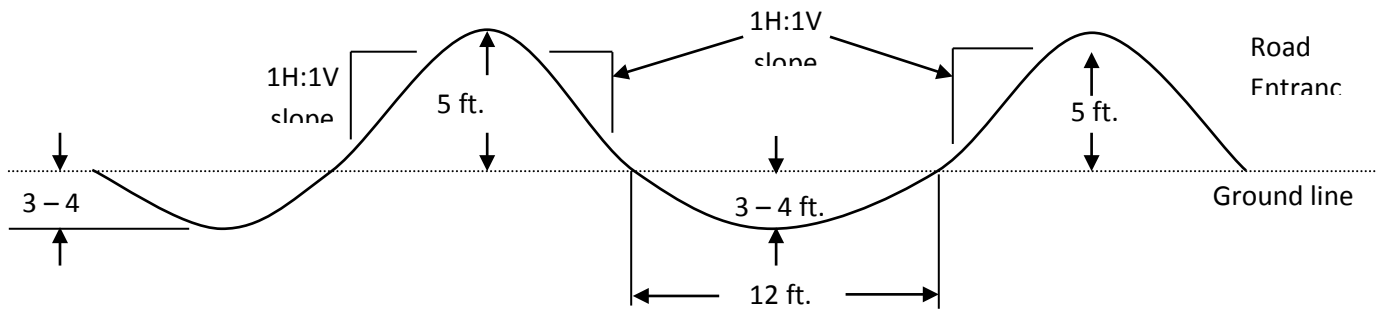
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SPECIAL PROJECT SPECIFICATION T-835-02F ENTRANCE DEVICES DETAIL

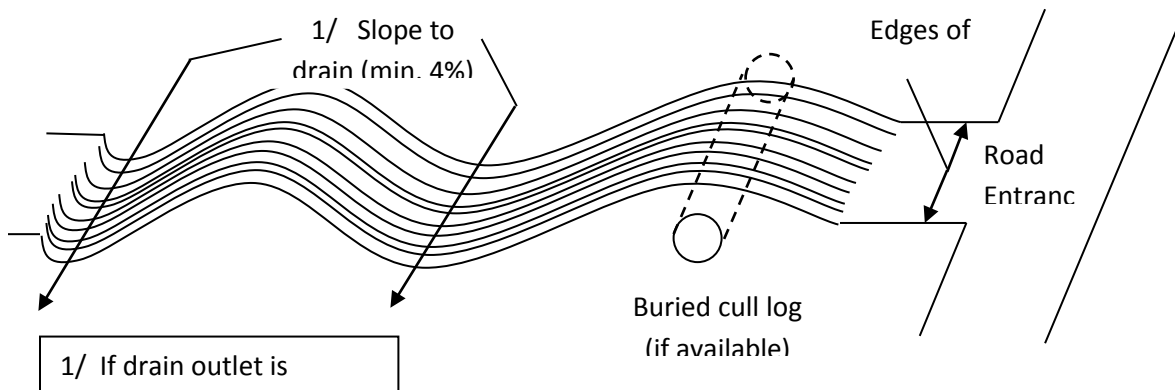
A. Entrance Devices

Any rocks placed in road must allow a minimum 60" clearance for snowmobile passage and any logs placed on roadway must be placed as flat as possible.

TYPICAL EARTH BARRIER
(no scale)



Profile View



Sketch View

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T-836 - MAINTENANCE FOR LIMITED USE (05/07)

836.01 Description

This work consists of making limited use roads passable for joint use by Contractor and high clearance vehicles, and providing drainage from the traveled way and roadbed.

836.02 Maintenance Requirements

A. Traveled Way

Contractor may smooth or fill existing cross ditches and water bars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:
 - a. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way and 10 feet turnout widths. Center the usable width on the roadbed or position away from the fill slope.
 - b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 a. above. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove timber which meets utilization standards or deck at agreed locations.
 - c. Place all removed materials away from drainages.
 - d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.
2. Clean and recondition drainage facilities in accordance with: Section T-831 and T-834.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle passage.
2. Contractor may reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out slope to no more than six percent.
3. Reposition slough or slide materials on the roadbed which are not capable of supporting a vehicle to provide the 12 foot

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width. When directed by the Contracting Officer, slough or slide material will be removed under Section T-832.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.
2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 10 feet in the area of the slump.
3. Unless the Contracting Officer agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 10 feet usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.
4. Washouts may be filled with suitable material.

D. Post haul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.
2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.
3. Leave roads useable for high clearance vehicles. Remove or reshape Contractor modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

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T-839 - MAINTENANCE FOR PROJECT USE (05/07)

839.01 Description

Work consists of providing minimum access required for Contractor's Operations and associated Forest Service contract administration and preventing unacceptable resource or road damage.

839.02 Maintenance Requirements

- A. Contractor is authorized to perform the following maintenance to provide vehicle passage and drainage:
1. Removing log, earth, and rock barriers and/or improving existing road junctions to enable vehicle access as mutually agreed.
 2. Smoothing or filling existing cross ditches and water bars.
 3. Installing Contractor-furnished culverts or other temporary drainage structures for shallow stream crossings as approved by the Contracting Officer.
 4. Removing brush, fallen trees, rocks, and other materials from the traveled way and other locations that interfere with needed maintenance:
 - a. Place all removed materials away from drainages.
 - b. Limb and remove timber which meets utilization standards or deck at locations approved by the Contracting Officer. Scatter other woody materials, including limbs, off of and below the roadbed without creating concentrations.
 5. Clean and recondition drainage structures in accordance with Section T-831 and Section T-834.
 6. Reposition or ramp over slough and slides to provide adequate width of traveled way material.
 7. Provide traveled way drainage above slumps and seal cracks in slump area. Ramp the slumps on both ends into undisturbed roadbed to provide usable width unless otherwise ordered by the Contracting Officer.
- B. During use, the traveled way shall not channel water along the road. Prior to seasonal periods of anticipated rains and runoff, perform the following work:
1. Shape the traveled way and roadbed to drain.
 2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes through use and maintenance.

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3. Perform work outlined in 839.02 A (5), (6), and (7).
4. During periods of non use, replace original barrier or provide and maintain standard MUTCD, Type 3, barricades unless alternate type barriers are approved by the Contracting Officer.

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T-841 - VEGETATION ESTABLISHMENT (05/07)

841.01 Description

This work consists of applying seed, fertilizer, mulch, and planting containerized or bare root plant stock singularly or in specified combinations to roadways and disposal areas. Work area may be limited to designated portions of the roadway and roadside or include treatment of the entire area bounded by the outer limits of the roadsides.

841.02 Materials and Application Rates

Provide the following listed materials:

- A. Fertilizer: Fertilizer shall be a standard commercial grade and provide the minimum percentage of available nutrients designated.

<u>% Nitrogen</u>	<u>% Phosphorus</u>	<u>% Potassium</u>	<u>% Sulfur</u>
NA	NA	NA	NA

Furnish fertilizer in sealed containers with the composition, weight, and guaranteed analysis of contents clearly marked. Apply at the rate of N/A pounds per acre.

- B. Seed:

1. This work consists of furnishing and placing required seed mix on all areas disturbed under this contract and on any other areas specified.
2. Apply the seed in the following amounts and mixtures:

<u>Species</u>	<u>Application Rate</u> <u>(Pounds/Acre)</u>
Sheep Fescue	2
Big Bluegrass	2
Streambank Wheatgrass	9

3. Use hand-operated seeding devices, or other devices approved by the Contracting Officer, to apply seed.
4. Furnish weed-free seed, with additional requirement that no seed containing any prohibited noxious weed seed, or any restricted noxious weed seed in excess of current state standards, for those weeds as defined in the current publication commonly referred to as the "All States Noxious Weed List" while the standards for prohibited and restricted noxious weeds are to be found in the appropriate state law or regulations.

Furnish seed separately or in mixture in standard containers with (1) seed name; (2) lot number; (3) net weight; (4)

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percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed), and (5) percentage of maximum weed seed content clearly marked for each kind of seed; (6) certification that the seed lot meets applicable State and Federal laws with regard to prohibited and restricted noxious weeds clearly marked for each kind of seed. Furnish the Contracting Officer duplicate signed copies of a certificate signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysts or the Society of Commercial Seed Technologists) certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts standards within 12 months prior to the date of application. This certification shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of germination, (6) percentage of purity, (7) percentage of weed content, (8) certification that the seed lot meets applicable State and Federal laws with regard to prohibited and restricted noxious weeds, and (9) in the case of a mixture, the proportions of each kind of seed. Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer. No seed may be applied without prior written approval from the Contracting Officer.

C. Mulch: Apply mulch materials as follows:

<u>Mulch Type</u>	<u>Application Rate</u>
NA	NA

D. Plant Stock: Furnish the following listed plant materials:

<u>Stock</u>	<u>Size</u>	<u>Bare Root</u>	<u>Containerized</u>
NA	NA	NA	NA

841.03 Schedules and Applications

A. Schedule

1. Seeding may not be done until all other ground-disturbing work on the road has been completed and accepted. Complete seeding as soon as other ground-disturbing work is accepted, unless a specific seeding season is listed below.

Seeding season: October 15 to March 31.

2. Do not apply the treatment when the ground is frozen or excessively wet. Terminate application during periods when there is too much wind to allow consistent treatment rates and control of the treatment area to the designated limits.

B. Roadside and Slope Treatment

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1. Roadsides will not require advance preparation unless required in the SUPPLEMENTAL SPECIFICATIONS or as SHOWN ON THE DRAWINGS.
2. Apply the designated treatment by hand operated machine. When both roadbed (under 841.03C) and slopes are shown in the SUPPLEMENTAL SPECIFICATIONS for treatment, application may be done at the same time.
3. The Contractor will not be required to operate self-propelled equipment beyond the defined roadbed. Do not apply treatment materials to the foreslope of ditches unless roadbed treatment (841.03C) is also required.

C. Roadbed Treatment

1. Scarify portions of the roadbed not previously disturbed and left loose under Section T-835 to a minimum depth of 4 inches unless bedrock is encountered at a lesser depth. The maximum distance between furrows formed by scarification is 12 inches.
2. Treat barrier mounds placed under Section T-835 while in a roughened condition.

D. Planting

1. Plant designated woody plant materials at the staked locations or designated spacings.
2. Place containerized plant stock in an appropriately sized hole formed by a dibble or other device to place the roots at the proper depth.
3. Place bare root plant stock in a slotted cut formed by a mattocks, pulaski, or other edged tool. Place the crown at ground level. Do not bend or break the roots.
4. Compress the area adjacent to the hole by foot or special tool to form a depression up and down slope from the stem and force the soil against the container or roots with no air voids.
5. Hold the plantings firmly in place by the soil. When checked by pulling upward on the top ½ inch of the plant stem, the planting shall either break at the hold point or the area compressed against the roots show evidence of movement. Remove and replace with fresh stock plantings that are not held firmly by the soil.

841.04 Government Provided Materials

The Government will provide the following listed materials. At least ten (10) calendar days notice must be given to the Contracting Officer prior to actual date material will be picked up.

Materials will be provided at:

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SPECIAL PROJECT SPECIFICATION T-841-01F - VEGETATION ESTABLISHMENT

Modify T-841 as follows:

Delete T-841.03.C.1.

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T-842 - CUTTING ROADWAY VEGETATION (10/07)

842.01 Description

This work consists of cutting all vegetative growth, including trees and other vegetation less than 4 inches in diameter measured 6 inches above the ground, on roadway surfaces and roadsides.

842.02 Maintenance Requirements

A. General

1. Cut brush, trees, and other vegetation within each area treated to a maximum height of 6 inches above the ground surface or obstruction such as rocks or existing stumps. When work is performed under this Section, remove all limbs which extend into the treated area, or over the roadbed, to a height of 14 feet above the traveled way surface elevation.
2. Items to remain will be DESIGNATED ON THE GROUND.
3. Work may be performed either by hand or mechanically unless specifically shown in the Road Listing. Self-propelled equipment is not allowed on cut and fill slopes or in ditches.
4. Correct damage to trunks of standing trees caused by Contractor's operation either by treatment with a commercial nursery sealer or by removing the tree as directed by the Contracting Officer.
5. Limb trees within the cutting limits which are over 4 inches -measured at 6 inches above the ground in lieu of cutting.
6. When trees are limbed, cut limbs within 4 inches of the trunk.

B. Cutting Side Vegetation

1. Show the width of vegetation to be removed in the Road Listing.
2. Unless otherwise included in the SUPPLEMENTAL SPECIFICATIONS or DESIGNATED ON THE GROUND:
 - a. Commence work at the edge of the traveled way and proceed away from the road centerline.
 - b. Roads without a defined traveled way: The starting point for cutting will be marked on the ground or defined in the SUPPLEMENTAL SPECIFICATIONS.
3. The points for establishing cutting limits are as follows:

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- a. Fill and daylighted (wide roadbed) section cutting commences at the edge of the traveled way and proceeds away from the road center line.
 - b. Drainage ditched section cutting commences at the bottom of the existing ditch and proceeds away from the road center line. Cutting on ditch foreslopes is not required.
 - c. Unditched cut section cutting commences at the intersection of the cutbank and the roadbed and proceeds away from center line.
4. Provide transitions between differing increments of cutting width. Accomplish transitions in a taper length of not less than 50 feet nor more than 70 feet.

C. Debris

1. Materials resulting from the cutting operation in excess of 12 inches in length or 3 inches in diameter is not allowed to remain on roadway slopes within the treated area, in ditches, or within water courses.
2. Remove limbs and chunks in excess of 3 inches in any dimension from the traveled way and shoulders.
3. Materials may be scattered down slope from the roadbed, outside of the work area and drainages unless otherwise listed in D. Invasive Species of Concern.

D. Invasive Species of Concern

Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
<i>Road blading, brushing and ditch cleaning in areas with high concentrations of invasive species of concern will be done in consultation with the Contract Administrator, incorporating invasive plant prevention practices recommended by the District and Forest level Invasive Plant Specialist.</i>

839.03 Post Haul Requirements

- A. Upon completion of project use perform such work as needed to reasonably conform to the character of the existing road prior to Contractor's maintenance for project use, unless otherwise provided in the SUPPLEMENTAL SPECIFICATIONS or the Road Listing. Work shall be in addition to requirements of 839.02 B and in accordance with 839.03 B and C.
- B. Roads designated in the Road Listing to be blocked shall conform to the requirements of Section T-835. Unless otherwise approved by the Contracting Officer, remove Contractor-installed temporary

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structures from National Forest System land. Associated commercially-obtained materials shall remain the property of the Contractor.

- C. Remove or reshape Contractor improvements at road junctions, as approved by the Contracting Officer at the time of improvement.

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T-851 - LOGGING OUT (05/07)

851.01 Description

This work consists of removal of fallen trees and snags which encroach into the roadway or the 3 feet of roadside abutting the roadway on the cut side.

851.02 Maintenance Requirements

- A. Limb and remove timber which meets Utilization Standards, or deck at locations designated by the Contracting Officer.
- B. Limb other material cut into lengths for handling. Deck outside ditches and drainages, off the traveled way and turnouts or at staked locations. The clearing width is to the edge of the roadway for public use roads, except limited use roads. The clearing width for limited use roads is shown in the specifications.
- C. Notwithstanding C(T).3, blowdown timber outside Contract Area required to be removed, which meets Utilization Standards in A(T).2, when designated by the Contracting Officer is Included Timber subject to requirements of C(T).2.
- D. Do not leave woody debris and slash in excess of 12 inches in length or 3 inches in diameter, or concentrations which may plug ditches or culverts, in ditches, drainage channels, or on backslopes, traveled way, shoulders, or turnouts.

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T-891 - WATER SUPPLY AND WATERING (05/07)

891.01 Description

This work consists of providing facilities to furnish an adequate water supply, hauling and applying water.

891.02 Materials

If the Contractor elects to provide water from other than designated sources, the Contractor is responsible to obtain the right to use the water, including any cost for royalties involved. Suitable and adequate water sources available for Contractor's use under this contract are designated as follows:

<u>Map</u> <u>Key No.</u>	<u>Location</u> <u>Road</u>	<u>Location</u> <u>Milepost</u>	<u>Use</u> <u>Restrictions</u>
	5220000	MP 8.38 (Ortell Cr.)	None
	5130140	MP 0.10 (Buck Lake)	None

891.03 Equipment

- A. Positive control of water application is required. Equipment shall provide uniform application of water without ponding or washing.
- B. An air gap or positive anti-siphon device shall be provided between the water source and the vehicle being loaded if the vehicle has been used for other than water haul, if the source is a domestic potable water supply, or the water is used for tank mixing with any other materials.
- C. The designated water sources may require some work prior to their use. Such work may include cleaning ponded areas, installing temporary weirs or sandbags, pipe repair, pump installation, or other items appropriate to the Contractor's operations. Flowing streams may be temporarily sandbagged or a weir placed to pond water, provided a minimum flow of 5 cu. ft/sec is maintained. Obtain approval from the Contracting Officer on improvements for sandbags or weirs prior to placement.